ORIGINAL

ANTHI HELLENI POULOS
ATTORNEY AT LAW
9124 BELLS MILL ROAD
POTOMAC, MARYLAND 20854

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EX PARTE OR LATE FILED

15 July 1999

Ms. Magalie R. Salas, Esq.
Secretary
The Federal Communications Commission
Room 222
445 12th Street, S.W.
Washington, D. C. 20554

HAND DELIVERED

Dear Ms. Salas:

This letter concerns a presentation made by *METROCOM.COM.,Inc.* to Professional Staff of the Office of Engineering and Technology and the Wireless Telecommunications Bureau today, 15 July 1999. This report is made in conformance with *47 CFR Parts 0 and 1 [GC Docket No. 95-21; FCC 97-92], Ex Parte Presentations in Commission Proceedings.*

Accompanying this letter please find the following documents.

1. A Memorandum of Record of the Presentation and Discussion (3 pages)
2. Report of Company Administration of *METROCOM.COM.,Inc.* (2 pages)
3. List of Attendees (2 pages)
4. Distributed Document (meant to be used with an overhead projector (24 pages).

Twelve (12) copies of this communication (including all enclosures), are submitted herewith along with a 3.5 Floppy Disc containing the same documents. With your permission, the company would like to submit an addendum to this report in the next weeks, of a color version of the same Distributed Document (Item 4 above). Thank you.

Sincerely,

Anthi Poulos

No. of Copies rec'd 0+12
List A B C D E

AP:j
Enclosures

ANTHI HELLENI POULOS
ATTORNEY AT LAW
9124 BELLS MILL ROAD
POTOMAC, MARYLAND 20854
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MEMORANDUM OF RECORD

Date: 16 July 1999

Re: ExParte Report on a Presentation to professional staff of the Office of Engineering and Technology and the Wireless Telecommunications Bureau by *METROCOM.COM., Inc.*

The meeting took place on Thursday, 15 July 1999, 10:00 - 11:00 am in a Sixth Floor Conference Room - 6B112. Accompanying this Memorandum of Record please find a List of Attendees, Brief Report on *METROCOM* Administration, and a Document distributed in lieu of the overhead projection.

I. Mr. William Wolf, President and CEO of *METROCOM,* introduced the group form *METROCOM* and Mr. Raymond Lyons from Watkins-Johnson, the company teaming with *METROCOM.*

II. Mr. C. Gus Grant, *METROCOM* chairman, presented the business aspects of *METROCOM,* including brief history, capability, and goals for application of *METROCOM's* technology to achieve Enhanced 911 deployment in compliance with the FCC directive and timeframe. Mr. Grant gave an overview of the commercial relationships and accommodations contemplated and under discussion with carriers at this time.

Mr. Grant informed the group that the program recommended by *METROCOM* would result in no capital expenditures by the cell companies and indeed would result in a profit from the E911 locator equipment as a result of ancillary services using this equipment. This program would also enable the cell company to meet the E911 Phase II mandate.

Mr. Grant concluded by reminding the group that if (according to PSAPs) the lowest estimate of 1% of all 911 calls are life threatening, it is imperative, and in the public interest, that the process go forward as expeditiously as possible.

III. Messrs. Stangle and Seal spoke at varying intervals referring to the Distributed Documents

On the fourth page, "Location Technologies," there was some discussion and explanation of the *METROCOM* approach and the relative merits of each approach. *METROCOM* suggested that theirs was the only system that made use of all the known technologies on an ongoing operational basis.

With the following five pages, there was an explanation of SILS (Super Integrated Location System), that *METROCOM* uses for its network-based system.

On the following, Coverage Scenario Maps, there was some discussion of the meanings of the scenarios and the effectiveness of the various technologies.

On page 12, a map section of "Alligator Alley" in Florida – presented for discussion of the straight Highway Coverage Scenario, Problems, and Solutions.

The following photographs of towers simply illustrated the variety of structures already attached to towers.

Page 23 outlines "SILS Benefits" and was referred to only briefly later on during Q& A. Mr. Grant asserted: We will met the specifications of the FCC. We can accomplish the task on time. We will use the current cell phones now in use. We will cover roaming. And we will process every signal received."

This concluded the formal presentation and the meeting moved to Q&A

IV. Question and Answer Period

The question-and-answer period began with a brief review of the recent Technology Forum (28 June 1999) and this opened a brief discussion of the subject matter of that meeting - the relative merits of handset and network approaches. *METROCOM* asserted that research was underway to assure adaptability with all approaches, even as technologies progress.

One question concerned the possibility of FCC conducting tests and Mr. Grant cautioned against sacrificing critical time to conduct testing already ongoing in the private sector which would cause unpredictable delay in the Agency's implementation plan for Enhanced 911.

Discussion continued on the elements of tests conducted by companies, especially tests and data archived by *METROCOM*. The importance of meeting the needs of the various PSAPs was discussed and noted as a problem to be solved; especially considering varying degree of accuracy in research and substantive materials such as current maps, computer capability, and cell data. Mr. Stangle opined that rural populations deserve the same right to be located as [those in] cities. Also discussed were the importance of getting PSAPs integrated into the solutions when carriers have to make these decisions.

When FCC representatives asked what *METROCOM* wanted, the answer was "Stick to your mandated schedule, your current technical specifications, so as to enable the equipment suppliers and cell phone companies to get the job done."

When asked what *METROCOM* would recommend to the FCC in addressing the Enhanced 911 program, Mr. Grant emphasized the duty to the public interest to follow a course which would bring Enhanced 911 capability to all citizens of the United States as rapidly and efficiently as possible.

The meeting ended with a discussion of the number of lives at risk which would be specifically addressed by the Enhanced 911 Program. The discussion included data as listed below, based on calculations run earlier by the Agency and Mr. Grant's research of PSAPs. Finally, Mr. Grant recounted the information cited in *METROCOM*'s Reply Comments of 18 June 1999.[1]

Now, 110,000 (overall) 991 calls are received every day; 30% are from cell phones; and 1/3 (of those cell-phone 911 calls) are by persons who do not know where they are. The lowest estimate is that 1% of 911 calls are life-threatening. This means that over 1,000 calls to 911 every day are 1) from cells, 2) in life-threatening circumstances, and 3) by callers who do not know where they are.[2]

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[1]Available on FCC netsite, Search, Comments, Docket No. 94-102.

[2]Independent research of PSAPs by C. Gus Grant, *METROCOM.COM.,Inc.*

E-911 AUTOMATIC LOCATION IDENTIFICATION
***METROCOM.COM* - INFORMATIONAL MEETING**
JULY 15, 1999
FEDERAL COMMUNICATIONS COMMISSION

INTRODUCTION OF *METROCOM.COM* ATTENDEES by BILL WOLF
WILLIAM WOLF, PRESIDENT
C. GUS GRANT, CHAIRMAN
JOHN STANGLE, E911 PROJECT MANAGER
JAMES SEAL, STAFF SCIENTIST
Also
RAYMOND LYON - MANAGER, PROGRAM DEVELOPMENT
WATKINS-JOHNSON COMPANY

Represented by ANTHI POULOS, Esquire

METROCOM.COM MANAGEMENT TEAM

GUS GRANT, Chairman, is a graduate Electrical Engineer, bringing years of management and international experience. He was Senior VP of Ampex Corp. responsible for direct management of four divisions employing 5500 people. As Group Executive at Teledyne Corp., he was responsible for managing 29 subsidiary corporations in consumer and medical equipment. He was President of Picker Corp., a medical equipment manufacturer. Mr. Grant was President of Southern Pacific Communications - specializing in the telecommunications business. He was Founder and President of Sprint Communications (now U.S. Sprint) which he built into a major telecommunications company before it was sold to GTE. He currently is actively involved in a number of technological companies.

JOHN STANGLE, E911 Project Manager - has over 30 years of continual Systems and Product engineering, design, promotion and management experience with Communica-tions and Signal Intelligence related electronics. He was President and CEO of TechComm, Inc. which he built into a globally recognized manufacturer of radio signal intercept and location systems used by the military, intelligence and regulatory units. He held Senior Engineering positions with a number of companies - Watkins-Johnson; General Research Corp.; Norlin Communications, Inc.; and Frederick Electronics.

JAMES SEAL, Staff Scientist - with 23 years experience, 12 of which as Engineering Manager for TechComm, Inc. where he supervised the design, development and delivery of DF antennas and processors for both military and intelligence entities. He developed digital signal processing techniques used in manpack-type low power DF systems. These techniques, a sub-set of Fast Fourier Transform theory, were written for microcomputers. Other experience included senior engineering and management positions concerned with RF and PRF systems in Electropharmacology,Inc. and Origin Data Systems.

WILLIAM WOLF, President - left the Digital Computer Lab at MIT to found his own company - Wolf Research and Development Corp. He built this into a national computer professional services corporation with offices in Los Angeles; Houston (Manned Spacecraft Center); Washington, D.C.; and Boston, Mass, before selling it to the NYSE firm of EG&G.. In recent years he was Director of the Technology Capital Network at MIT. He holds many copyrights and patents in computer technology.

LAWRENCE GOULD, Executive Vice President and Chief Operating Officer - has extensive experience in the wireless data communications field. He was previously President of a wireless data company and proposed, designed, engineered and systems integrated, as a Prime Contractor, a multi-million dollar state-wide data communications system. He has been the founder of multiple technology based wireless corporations, including that of a public corporation, where he held executive positions.

ALFRED FERNANDEZ, Senior Vice President and Chief Financial Officer - served sa Senior Vice President and Chief Financial Officer of Nabi, a NASDAQ-listed global biophamaceutical company with 1998 revenues of $250M. He negotiated multi-million dollaar corporate financial arrangements including a public offering. Previous experience included Executive Vice President and CFO for Chattahoochee Financial Corporation and Senior Manager for Price Waterhouse.

RICHARD McDERMOTT, Director - was a Founding President of Data Ledger, an on-line payroll systems company. He was also a Founder of Synergistics, Inc., a public company which produced ATM software for the Banking Industry. Over 6,000 banks and Savings and Loan institutions are licensed customers. He was VP, Finance of Systematic Data Processing Services, Inc., a computer time sharing company which was sold to Grumman Data Systems.

TOM MORROW, VP of Sales and Marketing, has significant experience in the government two-way and wireless communications field, as VP, Worldwide Systems for E.F. Johnson Company. His direction of this unit, included Sales, Marketing, Service, Application Engineering, and Project Management. He was Senior VP, North American Operations, of Stanilite Pacific, Ltd. He was also responsible for establishing operations for an Australian company in North America for the Public Safety and Cellular markets..

RAYMOND LYON, Manager, Program Development, Watkins-Johnson Company; is a teaming member of *the METROCOM* engineering group.

METROCOM.COM, Inc.
1100 Lee Wagner Boulevard #311
Fort Lauderdale, FL 33315
(954)453-6065

PRESENTATION TO THE
OFFICE OF ENGINEERING AND TECHNOLOGY AND THE
WIRELESS TELECOMMUNICATIONS BUREAU
THE FEDERAL COMMUNICATIONS COMMISSION
by *METROCOM.COM.Inc.*

Thursday, 15 July 1999, 10:00 - 11:00 am
Sixth Floor Conference Room - 6B112

ATTENDEES

Office of Engineering and Technology

Charles Eisman, Deputy Chief, Electromagnetic Compatibility Division

Donald Draper Campbell

Robert P. Eckert, Chief, Technical Analysis Branch

Bruno Pattan

Wireless Telecommunications Bureau

Marty Liebman

Mindy Littell

Ron Netro

METROCOM.COM., Inc.

C. Gus Grant, Chairman

William M. Wolf, President

John Stangle, E911 Project Manager

James Seal, Staff Scientist

Raymond Lyon, Manager, Program Development, Watkins-Johnson

Anthi Helleni Poulos, Attorney

INVITED BUT NOT IN ATTENDANCE AT BEG INNING OF MEETING

Robert Bromery, Chief, Electromagnetic Compatibility Division, OET

Rebecca Dorch, Deputy Chief, OET

Daniel (Dan) Grosh, WTB

METROCOM.COM, Inc.

Ft. Lauderdale Jet Center
1100 Lee Wagener Boulevard Suite 311
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PRESENTS . . .

The E-911 Location Solution

Created by:

John Stangle

Jim Seal

Objectives

✘ To present the technical overview and detail of the METROCOM.COM, Inc. E-911 Location System Solution

Location Technologies

GPS	Global Positioning System
AOA	Angle of Arrival (Direction Finder)
SS	Signal Strength (Distance Indicator)
TDOA	Time Distance of Arrival
SILS	Super Integrated Location System

Location Capabilities

Technology	Accuracy	Coverage	Cost	Complexity
GPS	Excellent	Limited	High	Low
AOA/SS	Poor	100%	Medium	Medium
TDOA	Good	Min.	Medium	Medium
SILS	Very Good	100%	Med./High	Highest

Capabilities Matrix

Technologies	AMPS	TDMA	CDMA	GSM
GPS	X	X	X	X
AOA/SS	X	X	—	—
TDOA	X	X	Special	Special
SILS	X	X	Special	Special

What is SILS?

Super Integrated Location System

Comprised of:

- ✔ Multi-segmented
- ✔ Wide Aperture
  - ✔ Multi-path Signal Rejection
- ✔ Linear and/or circular disposed Antenna Arrays
- ✔ Interferometric AOA determination algorithm
  - ✔ "N" channel design (Phase/Amplitude)
- ✔ Digital Signal Processor (DSP)
- ✔ Super Resolution AOA Processing Method
- ✔ AOA - Netting / Location
- ✔ TDOA - Netting / Location
- ✔ In low density service areas. SILS maintains limited precision location capability (Single-Site-Locator <SSL>Technology)
- ✔ Adaptable to Micro-cell and Pico-cell utilization

Location Technology Deficiencies Summary

✔GPS

- ✔ **Will not work heavy urban environment. (*cities*)**
- ✔ **Requires all new cell phones**
- ✔ **Will not work in buildings or cars (handheld's)**

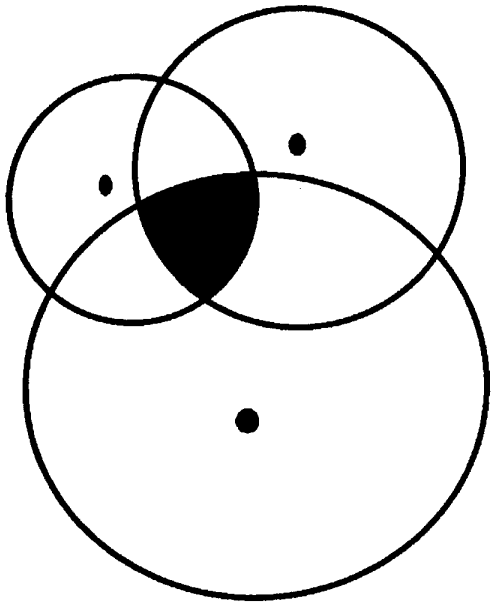
✔TDOA

- ✔ **Will not work over vast areas when there are less than 3 sites in radio view**
- ✔ **Less than optimal accuracy in multi-path environment**

✔AOA/SS

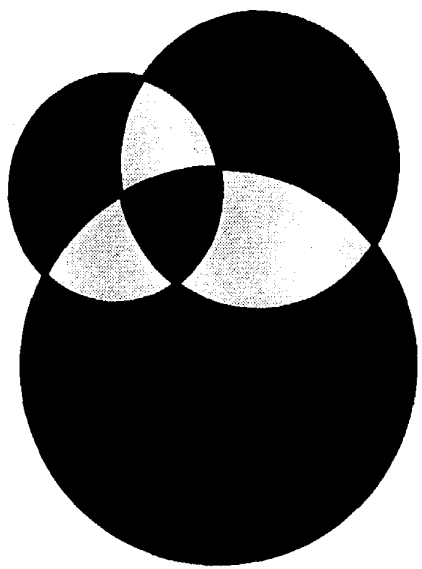
- ✔ **Poor accuracy when stand-alone**
- ✔ **Less than optimal accuracy in multi-site signal interceptions**

Coverage Scenario Map #1
TDOA



Overlap area for requirement of 3 similtaneous reception towers

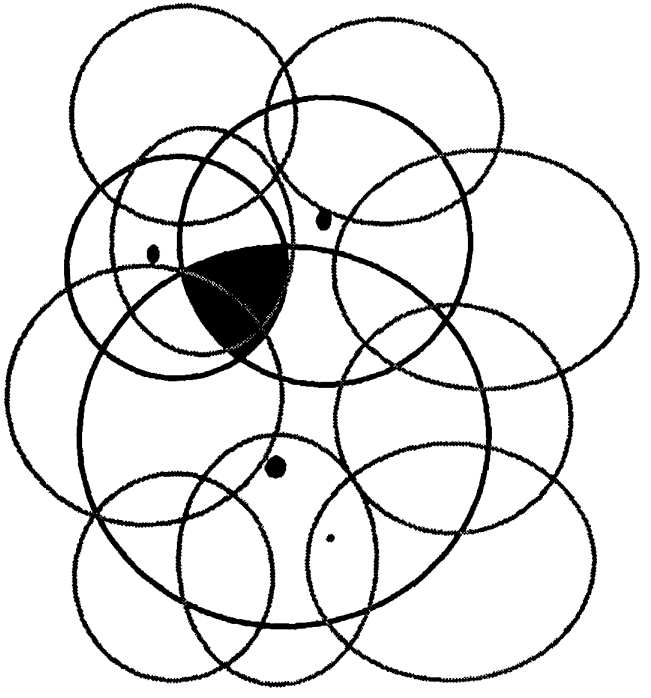
Coverage Scenario Map #2
TDOA



Red=area to illuminate 3 towers
Yellow=area to illuminate 2 towers
Green=area to illuminate only 1 tower

Coverage Scenario Map #3

Adding Micro-cells to TDOA

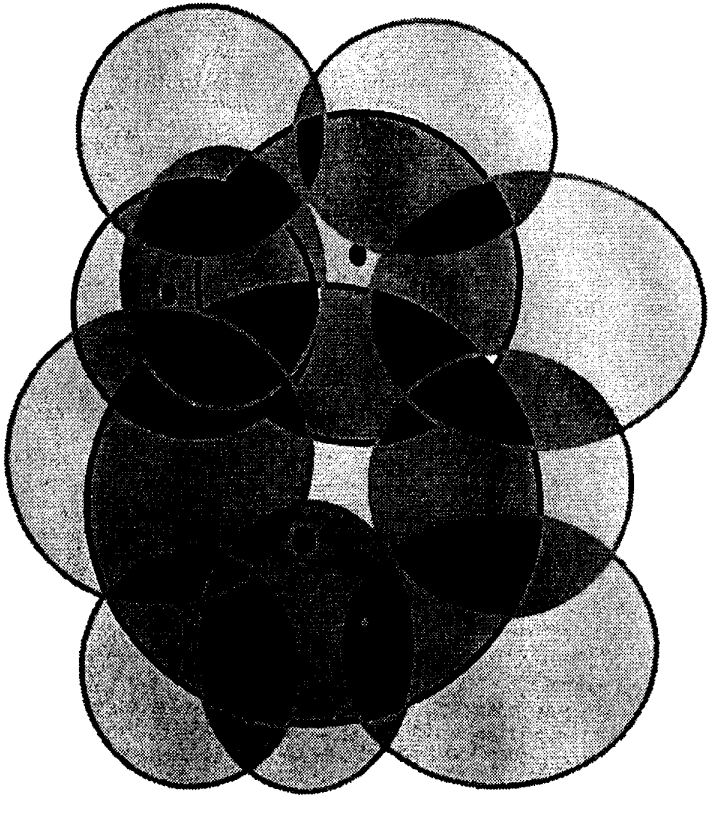


Overlap area for requirement of 3 similtaneous reception towers. Micro towers are distributed throughout the area and coverage is still low.

Coverage Scenario Map #4

TDOA/Micro-cell

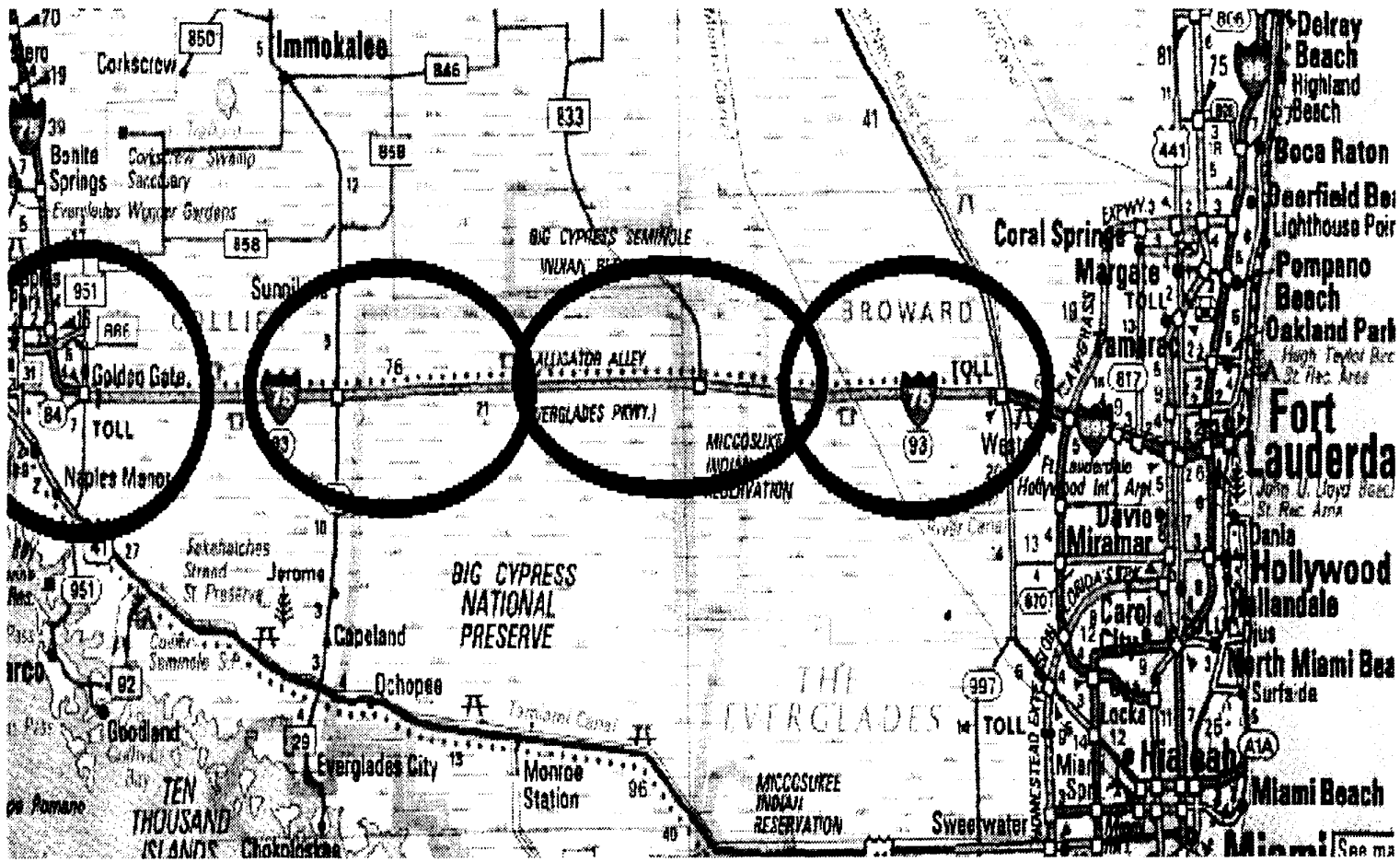
Coverage Holes

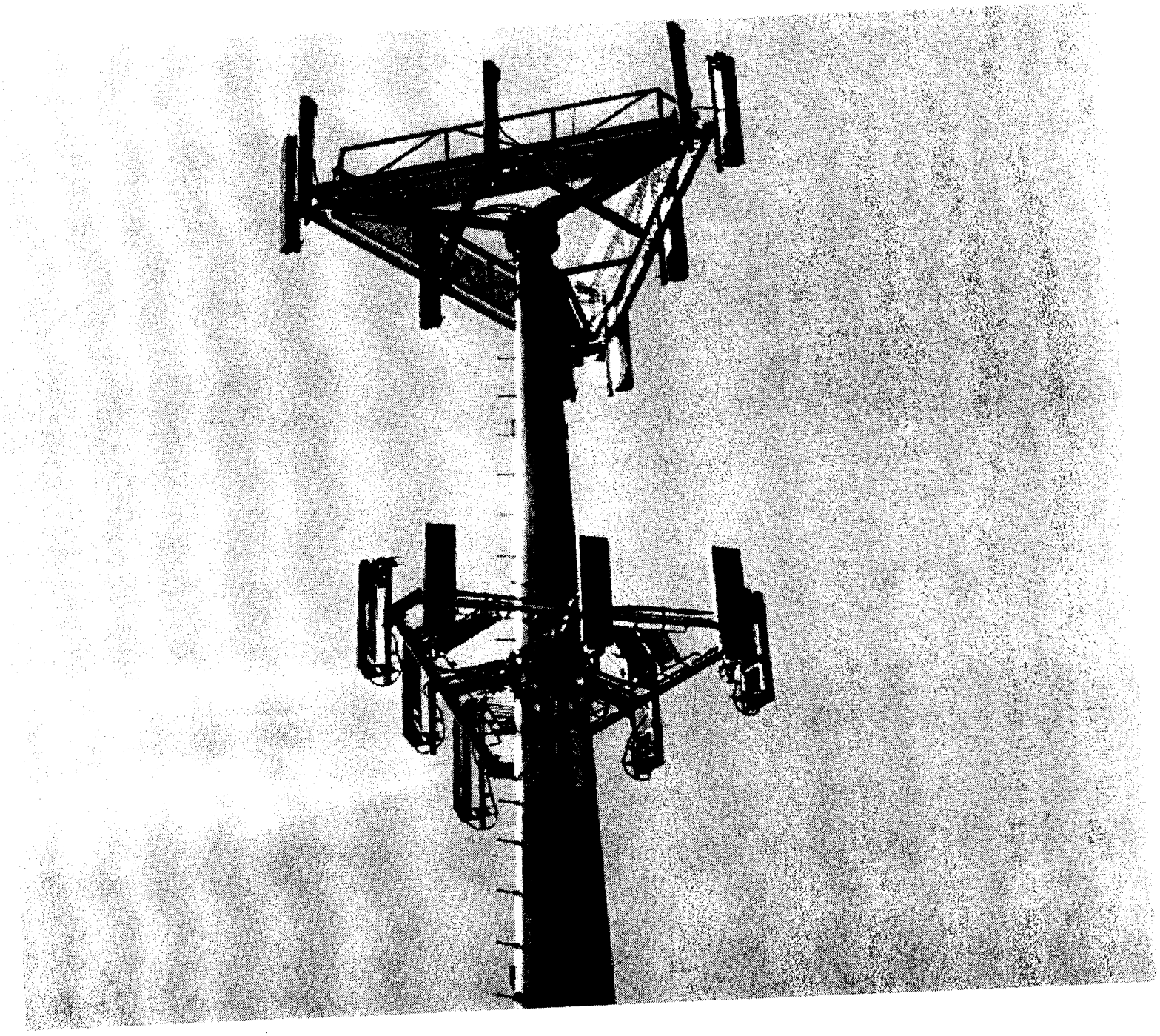


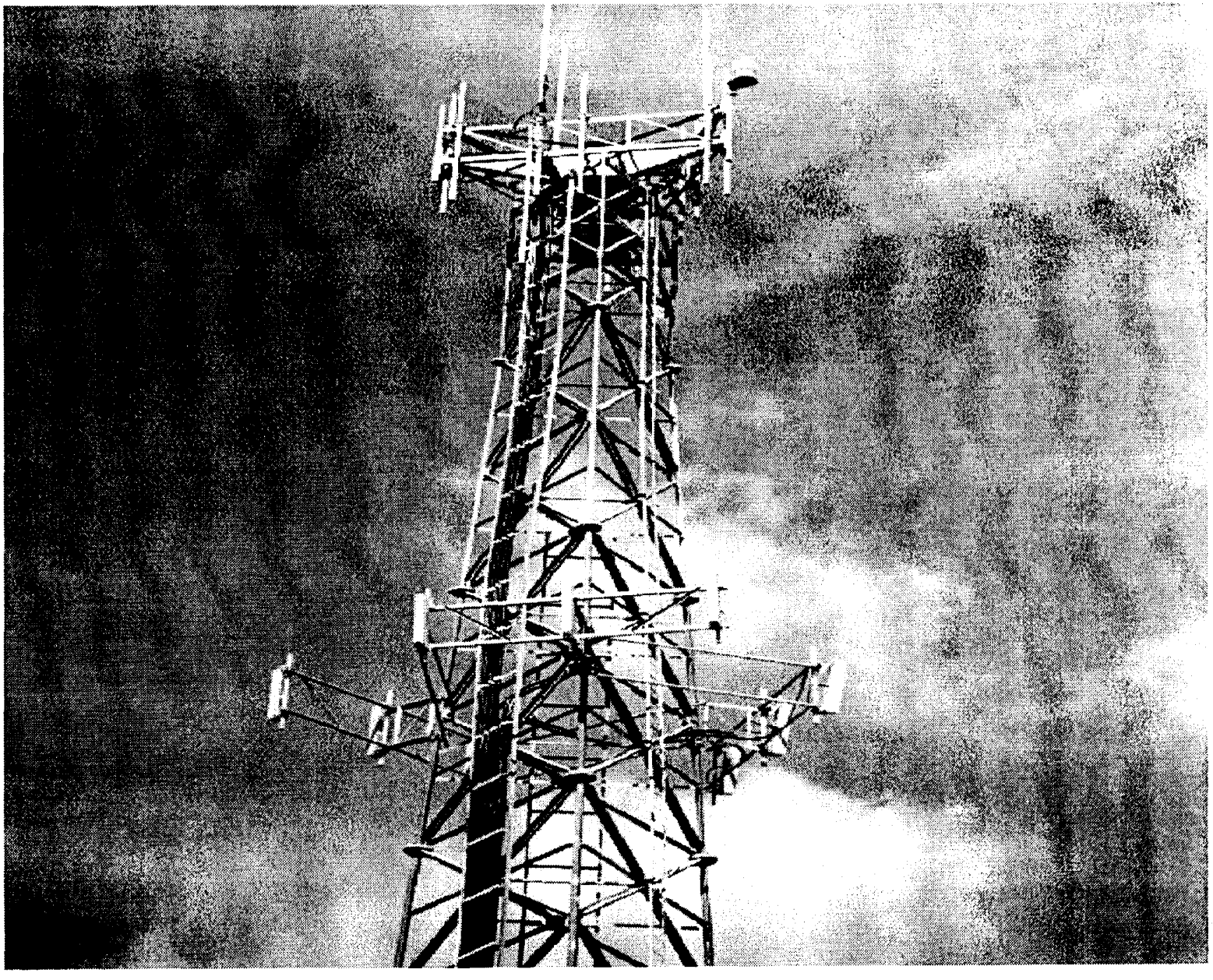
CYAN= ONLY 1 TOWER ILLUMINATED
VIOLET= 2 TOWERS ILLUMINATED
RED = 3 TOWERS ILLUMINATED

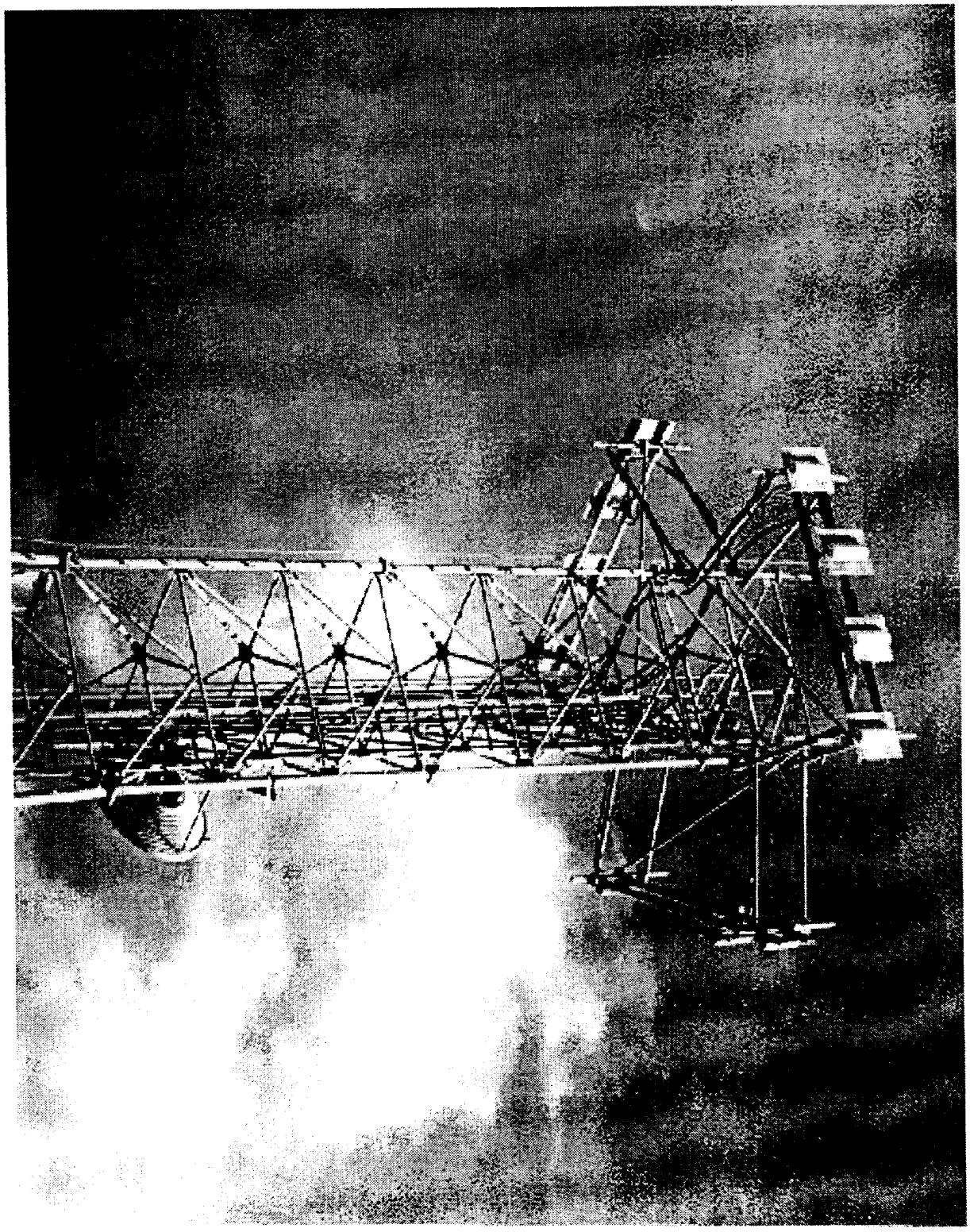
Coverage Scenario Map #5

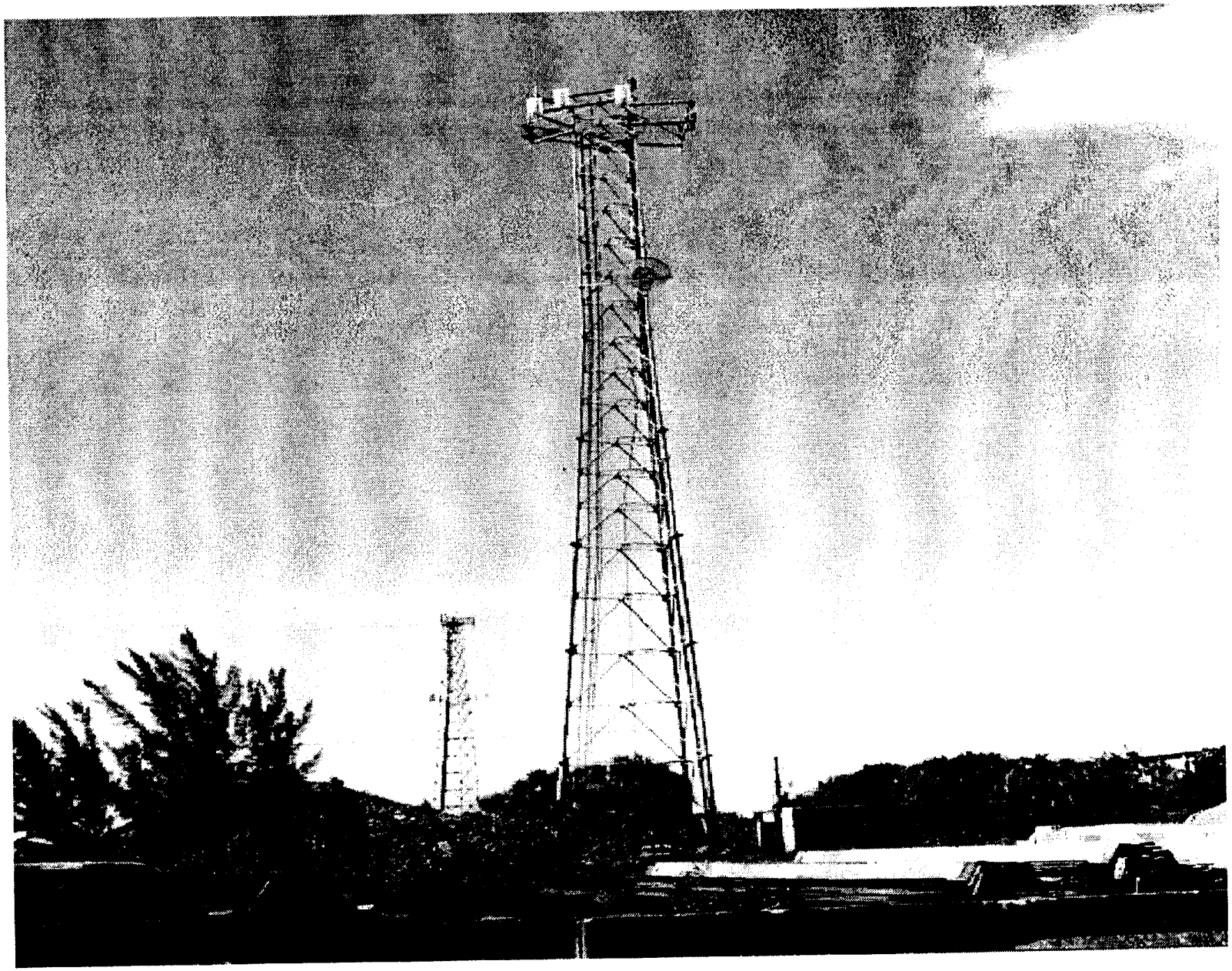
Highway coverage problems



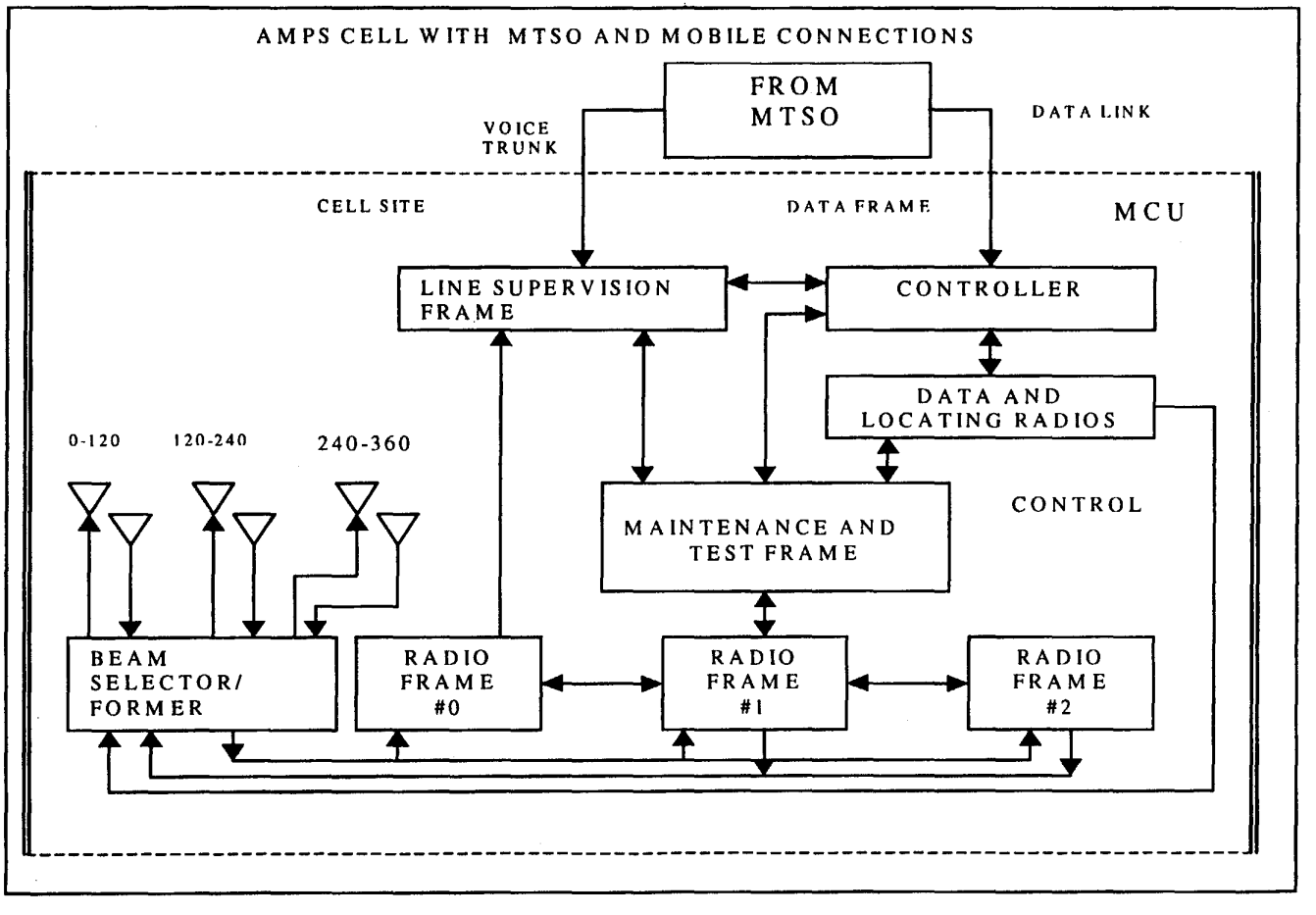




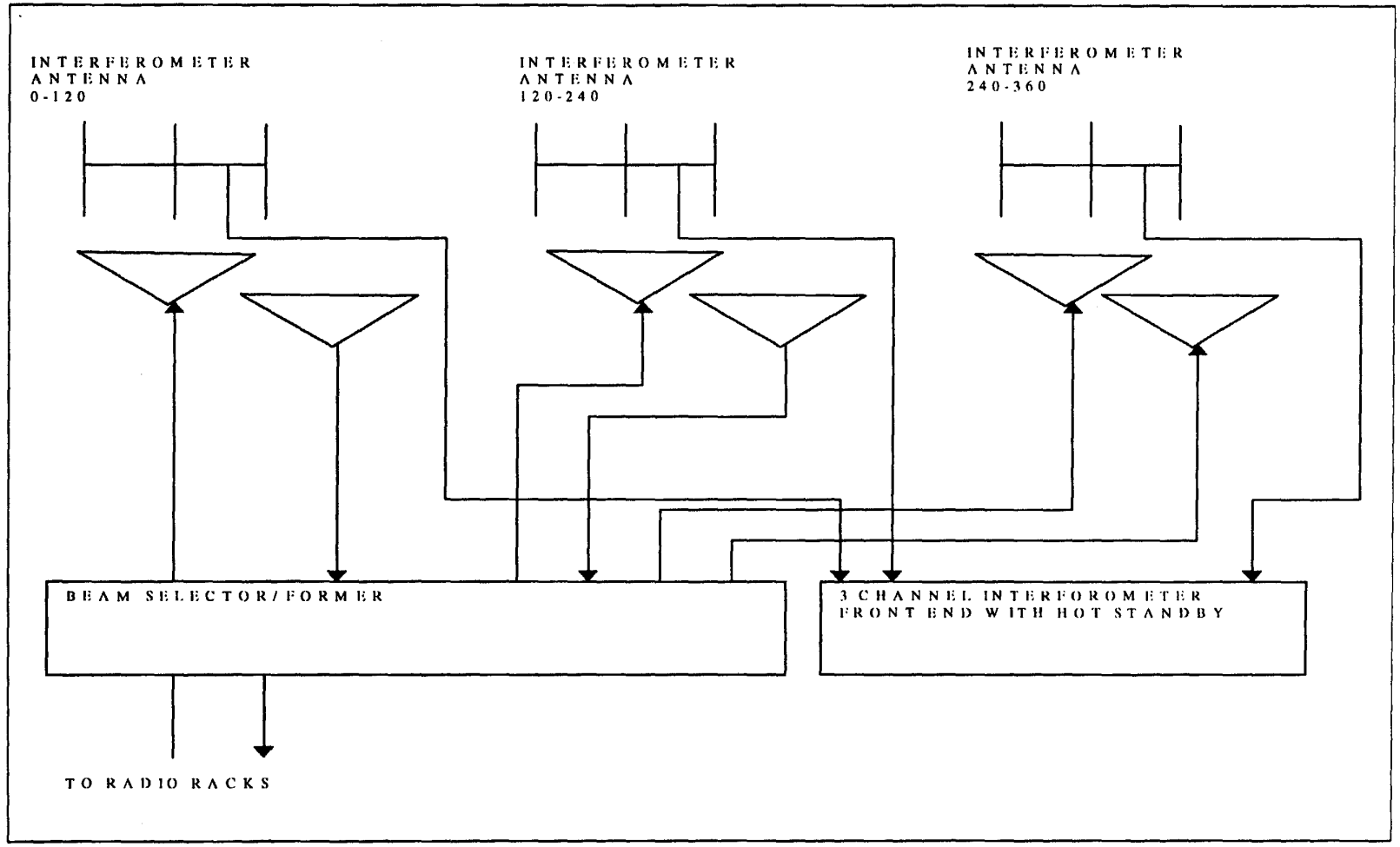




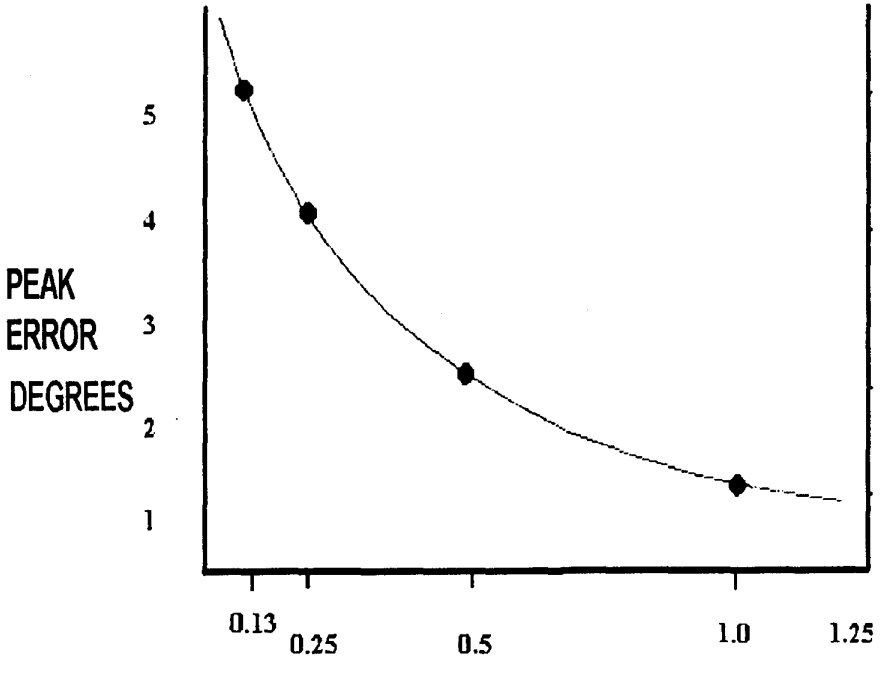
AMPS CELL WITH MTSO AND MOBILE CONNECTION



Beam Selector Former



AOA Aperture and Multi-path

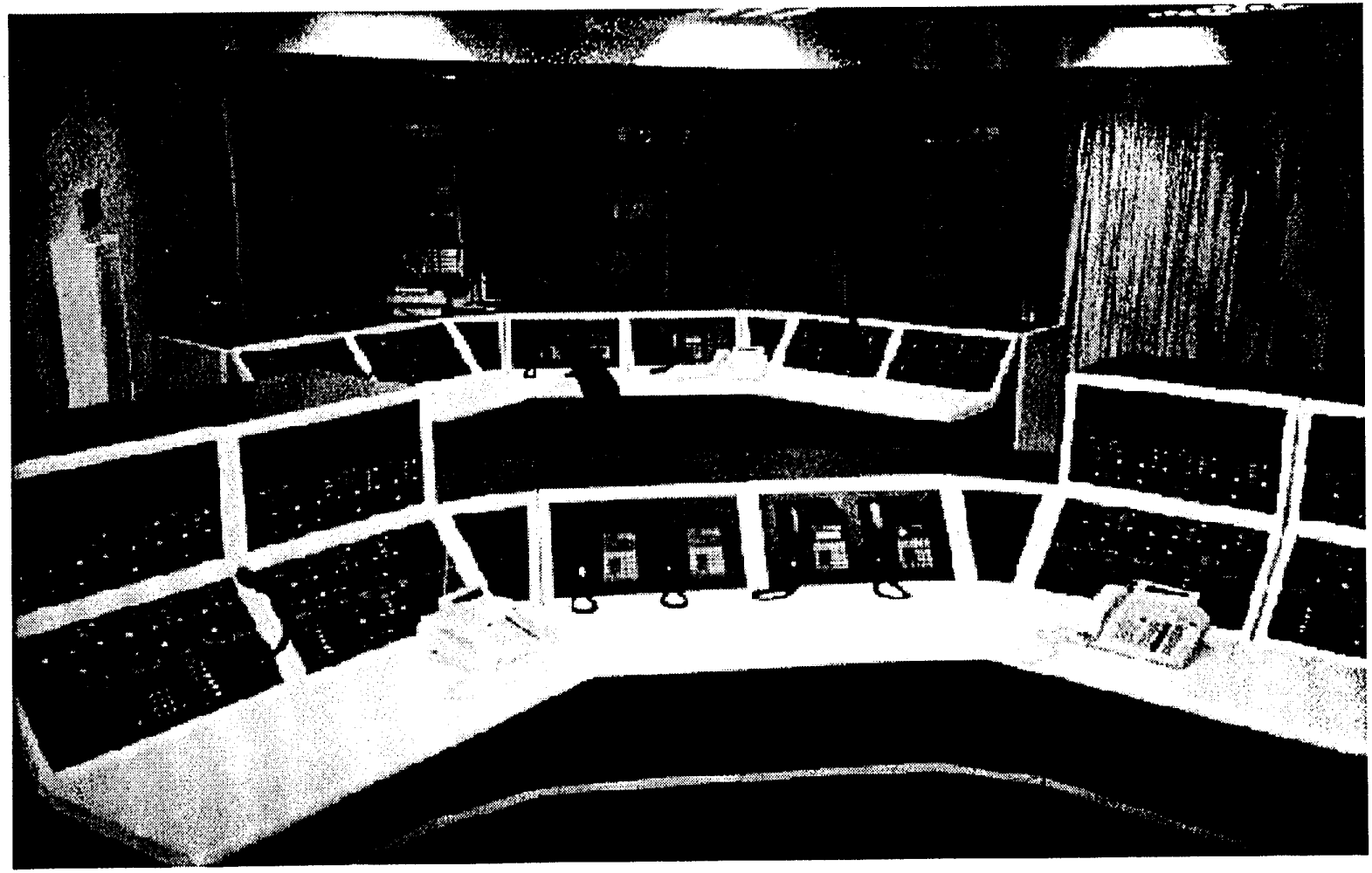


PEAK ERROR TO APERTURE SIZE
FOR SINGLE SPACED MULTIPATH SIGNAL

E-911 Location Sequence

- ✔ 911 call received by site(s)
- ✔ Sector monitored & Selected for Interferometer
- ✔ AOA captured by Interferometer
- ✔ SS captured by Interferometer
- ✔ TDOA captured by Interferometer & Time Stamp established
- ✔ Results correlated with other cell site(s)
- ✔ Correlated location established & exported to control center

The Heart of the System



SILS Benefits

- Increases to 100% the probability of establishing a location.
- Fail Soft Techniques for urban environments.
- Single site location capability in rural environment.
- Utilization of cell site antennas (Reception capabilities equal to the location capability).

- Other
  - MetroTrack Map Matching.
  - Calibration mapping.
  - Cell site confidence level.
  - Cell site operational level(s).

METROCOM.COM, Inc.

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1100 Lee Wagener Boulevard Suite 311
Ft. Lauderdale, FL 33315
954-453-6065

Attachment A

DOCUMENT OFF-LINE

This page has been substituted for one of the following:

o An oversize page or document (such as a map) which was too large to be scanned into the ECFS system.

o Microfilm, microform, certain photographs or videotape.

X o Other materials which, for one reason or another, could not be scanned into the ECFS system.

The actual document, page(s) or materials may be reviewed by contacting an Information Technician. Please note the applicable docket or rulemaking number, document type and any other relevant information about the document in order to ensure speedy retrieval by the Information Technician.

1 DISKETTE